

In comparing these with the descriptions I find many discrepancies and interesting additions to make, though I do not of course suppose that my notes will anticipate those of the many able botanists who have collected them & whose writings are either unacceptable to me as unpublished —

Do not consider this as requiring answer as to "special questions" I will be careful not to trespass on your valuable time much, being greatly obliged for the trouble you have already taken for me which fully answers my inquiries —

If you would like to see the list I refer to of additional species I will forward it to you

Yours Respectfully

Prof Gray
Cambridge

J. G. Cooper

Orange Dec^r 20th 1858

Dear Sir

Yours of the 25th ult. is received, and I have been much interested and instructed by it; — I find that you consider constant differences however slight or sufficient to distinguish species, as indicating their distinct origin. This is certainly the most philosophical mode of considering the matter, though we must forever remain uncertain whether precisely similar originals, may not have been independently created in different parts of the world, a view which is favored by some facts, and is ably discussed with other allied subjects in Adams' Contribution to Conchology — So far we must agree — and I am obliged to you for giving me

your views on the matter. But when
it comes to the means of distinguishing
species, nearly allied, without intermedi-
ate specimens, I suppose no two natu-
ralists will agree on the value of char-
acters in any branch, and it is here
that I have thought it might be well
to fix arbitrary rules, similar to those
by which the higher artificial groups
are defined. Not in order to establish
species on a "hypothesis," but to facilitate
the inquiry and to prevent to some
degree the confusion now pervading all
branches on account of this disagree-
ment among naturalists. By mutual con-
sensus more unanimity might be attain-
ed, even at a sacrifice of natural distinct-
ness in some cases, until the Natural
sciences are far enough advanced, to
allow of more exactness.

I have a plan under cogitation which
may be worth proposing to the American
Association at some future time.

My object now is to "take the sense" of
our naturalists individually on the sub-
ject, so as to compare opinions.

In regard to my plants I conclude
it will perhaps be best for me to make
out more fully my notes on each specim-
en where, disagreeing with authorities, -
to avoid trouble in correspondence on the
subject, when the published list will
show to all the points of difference.

I should like therefore to have return-
ed to me the list you made out, with
your further remarks. I can add to it
about 150 species not in it which Dr. Torrey
has been kind enough to determine for me
many of them not being in the H. of N. &
and other doubtful species.